

## **REMARKS**

This amendment is in response to the Examiner's office action dated September 26, 2006.

### **1. Specification**

The Examiner states that several items in table 1 are unclear. Specifically, the Examiner states that the abbreviations "RR", "STS" and "HYPLSC" are unclear. Applicants note that on page 6, line 5 of the specification it states "A designation of RR indicates tolerance to glyphosate and a designation of STS indicates tolerance to sulfonylurea herbicides.". In addition, Applicants note that on page 6, line 11 of the specification, it states "HYPL = Hypocotyl Elongation. This score indicates the ability of the seed to emerge when planted 3" deep in sand pots and with a controlled temperature of 25° C. The number of plants that emerge each day are counted. Based on this data, each genotype is given a 1 to 9 score based on its rate of emergence and percent of emergence. A score of 9 indicates an excellent rate and percent of emergence, an intermediate score of 5 indicates average ratings and a 1 score indicates a very poor rate and percent of emergence". Applicants note that HYPLSC is an abbreviation for HYPL SCORE, and respectfully requests reconsideration.

In addition, the Examiner states that it is unclear what the number 8 means in relation to average field emergence, what the number 5 means for average hypocotyl length, and what "M" means regarding hypocotyl length.

Regarding average field emergence, Applicants direct the Examiner to page 4, line 26 of the specification where it states that "EMGSC = Emergence Score. The percentage of emerged plants in a plot respective to the number of seeds planted.". Scales used for field characterization are on a scale of 1 to 9. Here, a score of 9 indicates an excellent rate and percent of emergence, an intermediate score of 5 indicates average ratings and a 1 score indicates a very poor rate and percent of

emergence. Therefore, a score of 8 would indicate a very good rate and percent of emergence. The definition has been amended to recite the scale. Reconsideration is requested.

Regarding hypocotyl length, Applicants direct the Examiner to page where it states "HYPL = Hypocotyl Elongation. This score indicates the ability of the seed to emerge when planted 3" deep in sand pots and with a controlled temperature of 25° C. The number of plants that emerge each day are counted. Based on this data, each genotype is given a 1 to 9 score based on its rate of emergence and percent of emergence. A score of 9 indicates an excellent rate and percent of emergence, an intermediate score of 5 indicates average ratings and a 1 score indicates a very poor rate and percent of emergence." Applicants note that HYPLSC is an abbreviation for HYPL SCORE, and respectfully requests reconsideration. Applicants also note that the additional characterization of hypocotyl length as "M" is unnecessary and has been deleted from the specification.

## **2. Claim rejections, 35 U.S.C. § 112**

The Examiner has rejected claims 1 and 7 under 35 U.S.C. 112 as failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention. The Examiner states that inclusion of the ATCC number into the claims will obviate the rejection. The claims have been amended per the Examiner's suggestion, and reconsideration is respectfully requested.

The Examiner has rejected claims 1-8 under 35 U.S.C. 112, for failing to meet enablement requirements. The Examiner states that a deposit of seed would satisfy the requirements of 35 U.S.C. 112. Applicants have made the seed deposit and have amended both the claims and deposit paragraph to recite the deposit information. Reconsideration is respectfully requested.

### **3. Claim Rejections – 35 U.S.C. 102 and 103**

The Examiner rejects claims 1-8 as being anticipated by or obvious over Schultze (US Pat No. 6,833,496, hereinafter the '496 patent). Applicant respectfully traverses.

As stated supra, XB39J04 is resistant to sulfonylurea herbicides as disclosed on Table 1 of the instant application. XB39J04 is resistant to sulfonylurea herbicides, while the soybean variety only has glyphosate tolerance as taught in the '496 patent. This represents a very substantial difference between these two soybean varieties.

In addition, the maturity level for XB39J04 is 3 with a subgroup of 9. The maturity level for S010357 is a 3 with a subgroup of 4. This represents a significant difference in maturity. As stated in the specification on page 9, the difference of a tenth of a relative maturity group equates roughly to a day difference in maturity at harvest. Therefore, there is an approximate 5 day difference in maturity between these two lines, which represents a difference in timing of harvestability.

Further, XB39J04 contains 40.2% protein and 21.6% oil as disclosed in Table 1 on page 14 of the specification. Soybean variety S010357 differs with regard to seed protein and oil content. On page 7, line 21 of the '496 patent, Schultze teaches that S010357 exhibits 34.8% seed protein and 19.2% seed oil. Table 1 traits in the instant specification are average values from data points taken over a variety of environments, as described on page X of the specification; therefore this represents a real difference between the nutritional composition in these two lines. It is well known in the art that soybean varieties differ in protein and oil composition and can be bred for these characteristics. For example, Wilcox, referenced on page 40 line 14 of the specification and also attached as Appendix 2, states that , “percent protein is more highly heritable than seed yield”, and “heritabilities for percent protein were higher than those for yield” (Wilcox, ed. SOYBEANS: Improvement, Production and Uses, Second Ed., 1987, pp. 217, 219). Therefore, XB39J04 is not identical to S010357.

In summary, applicants respectfully assert that the soybean variety of the instant application and S010357 are not identical and differ much more than minor morphological variation. The Examiner has stated that if the claimed plant and seeds of the instant invention are not identical to S010357, then it appears that S010357 only

differs from the claimed plants and seeds due to minor morphological variation wherein said variation would not confer a patentable distinction to XB39J04 plants. Applicant respectfully traverses. The differences presented *supra* show that XB39J04 is not identical to S010357, and the Examiner has not provided any reference that may be combined with S010357 to arrive at the present invention. The Examiner has not provided a single reference with all elements of the claimed invention, nor a reference that could be combined with the '496 patent to produce XB39J04. Applicant respectfully asserts that a prima facie case of obviousness has not been made, and reconsideration is respectfully requested.

#### **4. Request for Information under 37 C.F.R. § 1.105**

The Examiner has made a Request for Information under 37 C.F.R. § 1.105. The Examiner states the requested information is "required to make a meaningful and complete search of the prior art". See Office Action, pp. 8-10.

Applicants provide answers to each of the Examiner's interrogatories discussed *infra*.

1. The Examiner begins by asking firstly, what were (are) the original parental soybean lines used to produce soybean line XB39J04? Please supply all designations/denominations used for the original parent lines and soybean line XB39J04. Please supply information pertaining to the lineage of the original parental lines back to any publicly available varieties.

In response to this question, the answer is: 94B24 and S04043, which have only been publicly disclosed as 94B24 and S04043 respectively. Information pertaining to the lineage of the original parental lines is attached as Appendix 1. Please note that XB39J04 is the experimental name for 93M94 as noted on page 1 of Appendix 1, box 2.

2. Secondly, what method and steps were used to produce soybean line XB39J04?

In response to this question, XB39J04 was developed from the cross of 94B24 and S04043, as detailed in Appendix 1.

**3.** Third, at or before the time of filing of the instant application or any provisional application to which benefit is claimed, had any of said parental lines or progeny therefrom been disclosed or made publicly available? If so, under what designations/denominations and under what conditions were said parent soybean lines or progeny disclosed or made publicly available and from when to when?

In response to this question:

a. The parental soybean line 94B24 was previously publicly disclosed under the designation 94B24 in PVP Certificate No. 200100082 issued May 8, 2001 and in U.S. Patent No. 6,613,967 issued September 2, 2003. The parental soybean line S04043 was not previously publicly disclosed.

b. No other progeny of the parental cross 94B24/ S04043 was previously publicly disclosed or sold by Applicant prior to the earliest priority date.

**4.** Fourth, at or before the time of filing of the instant application or any provisional application to which benefit is claimed, were any other soybean lines produced by said method using said original parental soybean lines, and if so, had said produced soybean lines been publicly available or sold? If so, under what designations/denomination and under what conditions were said other soybean lines disclosed or made publicly available and from when to when?

In response to this question: No soybean line using the same cross has been produced by said method using said original parental soybean lines at or before the time of filing of the instant application.

In light of the above remarks, Applicants respectfully request reconsideration and compliance with the interrogatories under the Request for Information under 37 C.F.R. § 1.105.

### **CONCLUSION**

In conclusion, Applicant submits in light of the above amendments and remarks, the claims as amended are in a condition for allowance, and reconsideration is respectfully requested. If it is felt that it would aid in prosecution, the Examiner is invited to contact the undersigned at the number indicated to discuss any outstanding issues.

Please consider this a three month extension of time from December 26, 2006 to March 26, 2007, under the provision of 37 C.F.R. § 1.136(a) and charge Deposit Account No. 16-1852 for the amount of \$1020.

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 16-1852.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

/Cassie J. Prochaska/  
Cassie J. Prochaska  
Reg. No. 56,434  
Attorney for Applicant

Cassie J. Prochaska  
Pioneer Hi-Bred International  
7250 NW 62<sup>nd</sup> Avenue  
P.O. Box 0552  
Johnston, IA 50131-0552  
ph 515.334.6452  
fx 515.334.6883  
cassie.prochaska@pioneer.com